

REMARKS

I. Claims 1-2, 6, 10-11, 30, and 32-34

Claims 1-2, 6, 10-11, 30, and 32-34 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,166,466 issued to Masaki (hereinafter "Masaki"). Applicants respectfully traverse the rejections.

Applicants submit that the Masaki patent is not prior art under § 102(e). Masaki's §102(e) date is May 18, 1999. The present application claims priority to a Korean patent application, no. 1999-13130, that was filed in Korea on April 14, 1999. Applicants submitted a certified copy of the Priority Document on July 26, 2001. Please acknowledge receipt thereof.

To substantiate the claim of priority, submitted herewith is a translation of the Korean patent application No. 1999-13130, along with a certificate signed by the translator in accordance with 37 CFR § 1.55(a). Accordingly, since Masaki is not prior art under § 102(e), Applicants submit that the claims are allowable.

II. Claims 3, 7, and 31

Claims 3, 7, and 31 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Masaki in view of U.S. Patent No. 5,783,860 issued to Jeng et al. (hereinafter "Jeng"). Applicants respectfully traverse the rejections.

As previously stated with respect to Masaki, Applicants submit that the Masaki patent is not prior art under § 102(e). Accordingly, Applicants submit that claims 3, 7, and 31 are therefore allowable.

III. Claims 12, 16, 17, 19, 37, and 40-43

Claims 12, 16, 17, 19, 37, and 40-43 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,661,338 issued to Yoo et al. (hereinafter "Yoo"). Applicants respectfully traverse the rejections.

A. Claim 12

The Examiner stated that,

"Yoo discloses chip mounting plate construction of lead frame for semiconductor package with (12); (37) a metal frame 1 including a central region within the frame; a plurality of metal leads extending from a first end integral with the frame to a second end adjacent to the central region, wherein at least a plurality of the leads T1, T2 increase in width as those leads extend from the frame toward the central region; a flat metal plate supported in the central region, wherein a first portion of each said lead overhangs a periphery of said plate (see Figures 2, 4)."

Applicants submit that Yoo does not disclose "a flat metal plate supported in the central region, wherein a first portion of each said lead overhangs a periphery of said plate," as recited in claim 12. Yoo discloses leads 8 in Figs. 2 and 7. In neither case, however, do leads 8 "overhang a periphery of said plate." Further, tie bars T₁ to T₄ are not "leads," and in any event do not "overhang[] the periphery of the plate," as is recited in claim 12. See Col. 3, lines 37-39. Because neither leads 8 nor tie bars T₁ to T₄ of Yoo "overhang[] the periphery of the plate," claim 12 cannot be anticipated by Yoo and should therefore be allowed.

B. Claims 16, 17, and 19

Claims 16, 17, and 19 depend from claim 12 and should be allowable for at least the same reasons as claim 12.

Further, in regards to claim 16, the Examiner stated that Yoo discloses "a plurality of electrically isolated members extending from said frame adjacent to said leads; wherein each

said member overhangs the periphery of the plate and is in a connection with said plate (see Figure 3).” Applicants respectfully disagree. It is presumed that the examiner is referring to the tie bars T₁ to T₄ of Fig. 3 as the “said members.” Tie bars T₁ to T₄, however, are formed integrally to support areas a₁ to a₄ and cannot therefore “overhang[] the periphery of the plate,” as is recited in claim 16. See, Col. 4, lines 33-36 and Fig. 3. Thus, claim 16 is not anticipated by Yoo.

C. Claim 37

Independent claim 37 was rejected under the same rationale as independent claim 12. It should be noted that the rejection to claim 37 was grouped with the rejection to claim 12 in the Office Action on pages 4 and 5, but the Examiner failed to address all of claim 37’s limitations.

Claim 37 is amended to correct the inadvertent omission of the word “pseudo” and to correct the term “bar” to read “bars.” The amendment merely confirms the amended portions of claim 37 with earlier portions of the claim. Applicant requests that the present amendment be entered, at least because it will put claim 37 in a better condition for appeal. 37 CFR §1.116.

Applicants submit that Yoo does not disclose “three metal pseudo tie bars each extending diagonally from a first end integral with a second corner, a third corner, and a fourth corner, respectively, of the frame to a second end adjacent to the central region,” as recited in claim 37. Yoo lacks any “pseudo tie bars.” Yoo discloses that “chip mounting plate 3 comprises four support members a₁ to a₄ respectively connected to tie bars T₁ to T₄ in a fashion that they are integral with the tie bars.” See, Col. 4, lines 33-36 and Fig. 3. Since tie bars T₁ to T₄ are formed integrally to support areas a₁ to a₄ of the chip mounting plate they

are not “pseudo tie bars,” because the “pseudo tie bars” of claim 37 must “overhang[] the periphery of the plate.” Therefore, Yoo does not anticipate claim 37.

Further, Applicants submit that Yoo does not disclose “wherein two leads of increasing width are adjacent and extend from opposite sides of a first corner of the frame, said two leads defining an open first slot between them, said first slot extending from the first ends of the two leads to their respective second ends,” as recited in claim 37. The Examiner has not identified where in Yoo this limitation is found. Yoo discloses leads 8 in Figs. 2 and 7 extending only from two opposite sides of the lead frame 1 toward a central opening and therefore fails to show any leads 8 that “extend from opposite sides of a first corner,” as recited in claim 37.

Further, Applicants submit that Yoo does not disclose “wherein a first portion of each said lead overhangs a periphery of the plate,” as recited in claim 37. As discussed with regards to claim 12, leads 8 do not overhang chip mounting plate 3. Therefore, claim 37 is not anticipated by Yoo and should be allowed.

D. Claims 40-41

Claims 40-41 19 depend from claim 37 and should be allowable for at least the same reasons as claim 37.

IV. Claims 13 and 20

Claims 13 and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoo in view of Masaki. Applicants respectfully traverse the rejections because the Masaki patent is not prior art under § 102(e). Accordingly, Applicants submit that claims 13 and 20 are allowable.

V. Claims 14 and 18

Claims 14 and 18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoo in view of Masaki and further in view of U.S. Patent No. 5,783,860 issued to Jeng et al. (hereinafter "Jeng"). Applicants respectfully traverse the rejections because the Masaki patent is not prior art under § 102(e). Accordingly, Applicants submit that claims 14 and 18 are allowable.

VI. Claims 21-28

Claims 21-28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Masaki in view of Yoo. Applicants respectfully traverse the rejections because the Masaki patent is not prior art under § 102(e). Accordingly, Applicants submit that claims 21-28 are allowable.

VI. Claims 35 and 36

Claims 35 and 36 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Masaki in view of Yoo. Applicants respectfully traverse the rejections because the Masaki patent is not prior art under § 102(e). Accordingly, Applicants submit that claims 35 and 36 are allowable.

VII. Claims 38 and 39

Claims 38 and 39 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoo in view of Jeng. Claims 38 and 39 are dependent upon claim 37, and should, therefore, be allowable for at least the same reasons as claim 37.

CONCLUSION

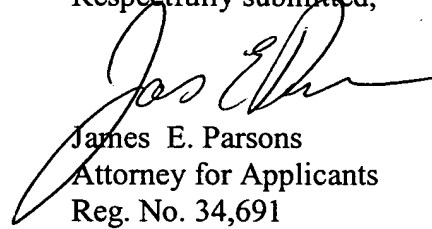
Applicants respectfully request allowance of claims 1-3, 6-7, 10-14, and 16-43.

Should the Examiner have any questions or comments concerning this response or the application, the Examiner is invited to call the undersigned at (408) 487-1315. Applicants especially request a call if an amendment will result in allowance of the case.

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Attachment A
Version with markings to show changes made

37. (Amended) A leadframe comprising:

a metal frame including four corners and a central region within the frame;

three metal pseudo tie bars each extending diagonally from a first end integral with a second corner, a third corner, and a fourth corner, respectively, of the frame to a second end adjacent to the central region;

a plurality of metal leads each extending from a first end integral with the frame to a second end adjacent to the central region, wherein at least a plurality of the leads increase in width as those leads extend from the frame toward the central region, and wherein two leads of increasing width are adjacent and extend from opposite sides of a first corner of the frame, said two leads defining an open first slot between them, said first slot extending from the first ends of the two leads to their respective second ends; and

a flat metal plate supported in the central region, wherein the plate has a thickness that is at least two times a thickness of said leads, and wherein a first portion of each said lead overhangs a periphery of the plate, and wherein a first portion of each said [tie bar] pseudo tie bars overhangs the periphery of the plate and is in a connection with the plate.